REMARKS

By the present amendment, claim 2 has been amended, and no claims have been cancelled or added. Accordingly, claims 1-26 are presently pending, and favorable reconsideration thereof is respectfully requested. Claims 1, 13, 14 and 24 are the independent claims.

Applicant wishes to thank the Examiner for the withdrawal of the previous grounds of rejection under 35 U.S.C. §102(b) and §103(a).

Claim 2

The Examiner has objected to claim 2, and has inquired whether the word "as" should be deleted from claim 2.

By the present amendment, applicant has amended claim 2 to insert commas. It is the Applicant's position that this is not a narrowing amendment. Claim 2 as amended recites that detecting operational states of the bridge includes "detecting, as said first predefined operational state, the presence of a predefined number of data units stored in the bridge," and further includes "detecting, as said second predefined operational state, fewer than said predefined number of data units stored in the bridge". Thus, the word "as" serves to indicate that the first predefined operational state corresponds to the presence of a predefined number of data units stored in the bridge, and that the second predefined operational state corresponds to fewer than the predefined number of data units stored in the bridge. Applicant respectfully submits that the word "as", in the context of claim 2, does not render claim 2 unclear or indefinite, and respectfully requests that this ground of objection be withdrawn.

35 U.S.C. §102(b)

The Examiner has rejected claims 1, 3-5, 12-14, 17 and 23-26 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,958,032 to Manabe.

Applicant respectfully notes that Manabe issued on September 28, 1999, whereas the present application was filed on December 2, 1998. Thus, Manabe is not citable against the present application under 35 U.S.C. §102(b), due to its issue date. Therefore, the rejection under 35 U.S.C. §102(b) is overcome.

Applicant assumes that the Examiner intended to cite Manabe under 35 U.S.C. §102(e). Therefore, in order to avoid the necessity of a further Office Action citing Manabe under §102(e), Applicant offers the following observations in relation to the Manabe reference, in order to expedite the allowance of the present application.

Applicant respectfully submits that the Manabe reference, even if cited under §102(e), fails to satisfy the requirements for a finding of anticipation in relation to independent claim 1.

In this regard, the standard for an anticipation rejection under 35 U.S.C. §102 has been well established by the Court of Appeals for the Federal Circuit, and is summarized in M.P.E.P. §2131. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California,* 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.,* 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989). " 'For a prior art reference to anticipate in terms of 35 U.S.C. §102, every element of the claimed invention must be identically shown in a single reference.' ... These elements must be arranged as in the claim under review

... but this is not an *'ipsissimis verbis'* test ...", i.e., identity of terminology is not required. *In re Bond,* 15 U.S.P.Q. 2d 1566, 1567 (Fed. Cir. 1990).

Independent claim 1 recites a method of controlling the flow of data units across a bus bridge, comprising:

a)   detecting operational states of a bus bridge in communication with at least two data buses for transferring data between the at least two data buses;

b)   disabling load access to the bridge when a first predefined operational state exists at the bridge; and

c)   enabling load access to the bridge when a second predefined operational state exists at the bridge.

Manabe discloses a data processing and communicating system with a high throughput peripheral component interconnect bus. As shown in Figure 2, a data processing sub-system 10 includes a central processing unit 10a, a system memory 10b and a host bus 10c connected to the central processing unit 10a and to the system memory 10b. The system memory 10b is shared between the data processing sub-system 10 and a data communication sub-system 11, which writes data codes into and reads them out of the system memory 10b. The data communication sub-system 11 includes a peripheral component interconnect bus 11a, a bus bridge circuit 11b, and a plurality of component devices 11c, 11d and 11e, which are connected to the peripheral component interconnect bus 11a. Thus, the bus bridge circuit 11b is connected to both the host bus 10c and the peripheral component interconnect bus 11a. The component devices 11c, 11d and 11e write data codes into and read data codes from the system memory 10b through the peripheral component interconnect bus 11a, the bus bridge circuit 11b and the host bus 10c. (Manabe, col. 3 line 49 – col. 4 line 5)

In the passage cited by the Examiner, Manabe states:

"Assuming now that data codes to be transmitted are stored in the system memory 11b, when the communication device 11c is requested to transfer the data codes to a destination, the first state machine 11f sends a buts [*sic*: bus] request to use the peripheral component interconnect bus 11a, and requests the bus bridge circuit 11b to obtain the right to use the host bus 10c. If the host bus 10c is operative to transfer data codes at low speed or is in busy status, the bus bridge circuit 11b instructs the first state machine 11f to cancel the bus request, and requests it to retry. The bus bridge circuit 11b monitors the status of the host bus 10c, and transfers the data codes from the system memory 10b to the firs[t]-in-first-out memory 11h during [*sic*: while] the host 10c is not occupied by a component device with a higher priority."

The Examiner appears to have observed that the bus bridge circuit 11b of Manabe monitors the status of the host bus 10c, and appears to have compared the "busy status" of the host bus 10c to Manabe to the first predefined operational state recited in claim 1. However, monitoring the status of a host bus is not the same as "detecting operational states of a bus bridge in communication with at least two data buses", as recited in claim 1. Manabe fails to disclose this element of claim 1, and therefore, the Manabe reference fails to satisfy the above-noted requirements for a finding of anticipation of claim 1.

Similarly, the "busy status" of the host bus 10c of Manabe is not the same as "a first pre-defined operational state ... at the bridge", as recited in claim 1. Manabe therefore also fails to disclose "disabling load access to the bridge when a first predefined operational state exists at the bridge" and "enabling load access to the bridge when a second predefined operational state exists at the bridge", as recited in claim 1. For these additional reasons, the Manabe

reference fails to satisfy the above-noted requirements for a finding of anticipation of claim 1.

In view of the above, Applicant respectfully submits that the Manabe reference, even if cited under 35 U.S.C. §102(e) in a future Office Action, fails to satisfy the requirements for a finding of anticipation. Applicant therefore respectfully requests allowance of claim 1.

Claims 3-5 and 12 are directly or indirectly dependent upon claim 1. Applicant therefore respectfully submits that these claims are allowable due to their dependencies, as well as the additional subject-matter that each of these claims recites.

Independent claims 13, 14 and 24 recite:

13. An apparatus for controlling the flow of data units across a bus bridge, comprising:

    a)   means for monitoring operational states <u>of a bus bridge</u> in communication with at least two data buses for transferring data between the at least two data buses; and

    b)   means for controlling equipment connected to at least one bus for disabling load access to the bridge by said equipment when said means for monitoring detects a first predefined operational state <u>at the bridge</u> and for enabling load access to the bridge when said means for monitoring detects a second predefined operational state <u>at the bridge</u>.

14. An apparatus for controlling the flow of data units across a bus bridge, comprising:

a)   a bridge monitor for monitoring operational states <u>of a bus bridge</u> in communication with at least two data buses for transferring data between the at least two data buses; and

b)   a control circuit for disabling load access to the bridge when said bridge monitor detects a first predefined operational state <u>at the bridge</u> and for enabling load access to the bridge when said bridge monitor detects a second predefined operational state <u>at the bridge</u>.

24.   An inter-bus communication system comprising an apparatus for controlling the flow of data units across a bus bridge, the apparatus comprising:

a)   a bridge monitor for monitoring operational states <u>of the bridge</u>; and

b)   a control circuit for disabling load access to the bridge when said bridge monitor detects a first predefined operational state <u>at the bridge</u> and for enabling load access to the bridge when said bridge monitor detects a second predefined operational state <u>at the bridge</u>; and

further including the bridge in communication with at least two data buses for transferring data between said at least two data buses.

Therefore, for reasons including those discussed above in connection with claim 1, Applicant therefore respectfully submits that the Manabe reference, even if cited under 35 U.S.C. §102(e) in a future Office Action, fails to satisfy the requirements for a finding of anticipation of independent claims 13, 14 and 24. Applicant therefore respectfully requests allowance of these claims.

Claims 17, 23 and 26 are directly dependent upon claim 14, and claim 25 is directly dependent upon claim 24. Applicant therefore respectfully submits that claims 17, 23, 25 and 26 are allowable due to their dependencies, as well as the additional subject-matter that each of these claims recites.

In offering the above remarks for the Examiner's benefit, Applicant does not implicitly admit that Manabe is in fact citable under §102(e), and Applicant makes no admission or representation as to the earliest invention date of the present application. Rather, the citability of Manabe under §102(e) is merely assumed for the purpose of the above remarks, to demonstrate that the Manabe reference, even if citable, fails to satisfy the requirements for a finding of anticipation.

35 U.S.C. §103(a)

The Examiner has rejected claims 2, 11, 15 and 22 under 35 U.S.C. §103(a) as being unpatentable over Manabe in view of U.S. Patent No. 5,367,534 to Chou et al. ("Chou").

Claims 2 and 11 are directly dependent on claim 1, and claims 15 and 22 are directly dependent upon claim 14. As the rejections of claims 1 and 14 have been overcome, Applicant respectfully submits that claims 2, 11, 15 and 22 are allowable due to their dependencies, as well as the additional subject-matter that each of these claims recites.

The Examiner has also rejected claims 6-8, 10 and 18-21 under 35 U.S.C. §103(a) as being unpatentable over Manabe in view of Chou, and further in view of U.S. Patent No. 6,097,698 to Yang et al. ("Yang").

Claims 6-8 and 10 are indirectly dependent on claim 1, and claims 18-21 are indirectly dependent upon claim 14. As the rejections of claims 1 and 14 have been overcome, Applicant respectfully submits that claims 2, 11, 15 and 22

are allowable due to their dependencies, as well as the additional subject-matter that each of these claims recites.
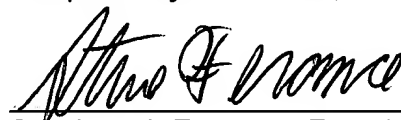
Claims 9 and 16

Applicant respectfully notes that claims 9 and 16, although indicated to stand rejected on the Office Action Summary accompanying the present Office Action, were not rejected in the Office Action itself. Applicant respectfully requests the Examiner to confirm the allowability of claims 9 and 16 in the next official communication.

Conclusion

In view of the foregoing, Applicant respectfully submits that the present application continues to be in condition for allowance, and respectfully requests that a Notice of Allowance be issued. Applicant respectfully notes that the present application has now been pending for more than five years, at least partly due to an internal error in the USPTO resulting in the misplacement or loss of applicant's response to a previous office action, resulting in a Notice of Abandonment, and necessitating a Petition to Withdraw the Holding of Abandonment. However, the present application is not eligible for a patent term extension, due to its filing date. Accordingly, should the Examiner have any outstanding concerns, the Examiner is respectfully requested to contact the undersigned agent by telephone at the Examiner's earliest convenience, to expedite the prosecution and allowance of this application.

Respectfully submitted,

Stephen J. Ferance, Reg. No. 48,090
SMART & BIGGAR
Box 11560 Vancouver Centre
2200 – 650 West Georgia Street
Vancouver, British Columbia
Canada   V6B 4N8
Telephone: 604-682-7780

SJF:DAG:cat